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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,191	01/18/2001	Hiroyuki Kumakura	108379	6457

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OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/13/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/761,191

Examiner

Sanza L McClendon

Applicant(s)

KUMAKURA, HIROYUKI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 3 and 5 recites the limitation "anisotropic conductive adhesive" in the preamble. There is insufficient antecedent basis for this limitation in the claim. Claim 1 is an adhesive composition it is not specific to the type of adhesive claimed in claims 3 and 5.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Igarashi et al (5,674,922)

Igarashi et al teaches active energy beam curable compositions comprising oxetane compounds that are suitable for use as an adhesive—column 7, lines 50-53. Said compositions comprise (1) at least one compound having one oxetane ring and one hydroxyl group in the molecule, (2) at least one compound having one or more oxirane rings in the molecule, and (3) at least one compound that initiates cationic polymerization by irradiation.

Compound (1) is used in amounts from 5 to 50 parts by weight of the total composition. Compound (2) can be a compound having an epoxide groups in the molecule—see columns 3 thru 5. Compound (3) is preferably a diaryl iodonium salt, triaryl sulfonium salt, or the like—see column 5, lines 65 to the end.

The inventions of claims 1-2 are anticipated by the reference.

6. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (4,394,403)

Smith et al teaches photopolymerizable compositions. Said compositions are useful for bonding materials together and can be used as an adhesive—see abstract and column 6, line 57. Said compositions comprise a cationically polymerizable organic material and a photosensitive aromatic iodonium salt. Said cationic material may be an epoxide resin material. Smith et al teaches that to adjust the viscosity, coatability, or final cure properties of the

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photopolymerizable epoxy composition some amounts of oxetane compounds can be added—see column 6, lines 47-55. The examiner contends that some amounts of oxetane compounds inherently reads on at least applicant's lower limit (5%) of oxetane content in the absence of evidence to the contrary. In addition, the compositions can comprise non-basic fillers, such as powdered metals of aluminum, zinc oxide and etc. These appear to read on the conductive particles of claims 3 and 5.

The inventions of claims 1-3, and 5 are anticipated by the reference.

*Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (4,394,403) in view of Igarashi et al (5,674,922).

Smith and Igarashi et al are described in the above rejections. Smith does not express teach adding 5 to 50% of the oxetane compound to the composition. Smith, however, does teach oxetane compounds are useful for adjusting viscosity, coatability, and adjusting the final cure properties of an epoxide composition.

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Igarashi et al shows that it is well known in the prior art to combine 5 to 50 parts by weight of oxetane compounds to photocurable epoxide compositions useful as adhesives.

Smith and Igarashi et al are analogous art because they are from the same field of endeavor that is the art of photocurable epoxide compositions useful in adhesive applications.

One of ordinary skill in the art would have found it obvious to add oxetane compounds in amounts from 5 to 50 parts by weight of an epoxide compositions, as taught by Igarashi et al and Smith. The motivation would have been to successfully tailor an epoxide composition by adjusting the viscosity, coatability, or final cure properties, as taught by Smith.

The invention of claim 2 is read in the reference.

9. Claims 4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (4,394,403).

Smith is described in the above rejections. In addition to teaching that the photocurable composition are useful as adhesives, Smith teaches that the compositions are useful in printed circuitry applications and bonding flexible substrates, such as plastics, metals paper, ceramics and wood. Therefore, the examiner contends that it would have been obvious for one of ordinary skill in the art to use the adhesive compositions as taught by Smith to bond electrodes on to plastic substrates and circuit boards since these method steps are well known in circuitry applications. The motivation would have been

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to adequately bond substrates with an adhesive composition that has superior abrasion resistance and adhesion to rigid, resilient, and flexible substrates, as taught by Smith, with the expectation of success in absence of evidence to the contrary or unexpected results.

The inventions of claims 4, and 6-7 are read in the reference.

### *Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (703) 305-0505. The examiner can normally be reached on Monday through Friday 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9645 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0657.

Sanza L McClendon  
Examiner  
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SMc  
February 11, 2002

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A handwritten signature in black ink, appearing to be "Paul H. H." or similar, written in a cursive style.

Paul H. H.  
Senior Examiner  
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